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ABSTRACT

English spelling is reputedly full of irregularities and therefore not a safe guide to pronunciation. Most modern teaching of English pronunciation to adult speakers of other languages has relied on some kind of ancillary device, variously called a special alphabet, broad phonetic notation, or phonemic transcription. Such devices have been successful because they deal with the phonology of the language in isolation, as the beginning student needs to deal with it. Eventually, however, the student must make his way with the conventional orthography. Attempts to lead the student from sound to spelling by describing "phoneme-grapheme correspondences" are erroneous and futile. English orthography provides information which is much more than phonological, in the narrow sense. Interpretation of written English depends on grammatical, etymological, tactic, dialectal, and morphophonemic considerations. The student needs to learn the orthography for what it is, in a systematic way. This article provides specific suggestions, illustrated by contrastive analysis of pairs of words, for developing the student's competence in this area. (Author/RL)

TEACHING ENGLISH SPELLING AND PRONUNCIATION

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Suppose you have a new class of absolute beginners in English as a second language. Suppose your textbook has been selected for you. And suppose that when you open the book you find--right on page 1--the information that the letter A has five sounds, as in mate, mat, father, fall, and soda; that the letter E has three or four sounds; and so on for all the vowel and consonant letters in the alphabet. Fifty years ago the chances of finding such a textbook would have been very great. Today, fortunately, the chances of finding, or being issued, such a book are slim. I hope that the teaching procedures which such a book would imply are equally rare or even non-existent today.

If we have done anything right in the field of language teaching in the last 30 or 40 years, it has been in putting emphasis where emphasis belongs—in recognizing that the learning of a language begins with learning speech, not writing. We have learned to attach great importance to the student's systematic listening and imitation, to his acquisition of the rhythm and intonation of the new language, and to his learning

to discriminate relevant sounds through minimal pairs (sheep/ship, leak/lick, clique/click, etc.), with complete disregard for the way such words are spelled.

We recognize that English spelling is not sufficiently simple and not sufficiently consistent to be a guide to pronunciation for the beginning student. As everybody "knows," English orthography is "irregular." Consequently, at least for the adult and adolescent students who are literate in their own language(s), we often use some kind of regular guide to pronunciation. Such graphic guides have been variously called broad transcription, special alphabet, or phonemic notation. But whatever the name, the purpose is the same: to provide a regular way of correlating graphic units with phonological units, so that one letter or sequence of letters always stands for (represents) the same sound or sequence of sounds, and any relevant sound or sequence of sounds is always represented in the same way. In other words, every graphic unit has a consistent value and every phonological unit has a consistent representation.

Eventually, however, our students will be on their own.

They leave their classes and go out into the bigger Englishspeaking world. We hope, of course, that when they leave they

have mastered the pronunciation and the grammatical system of the language, but we know that they still have a lot of vocabulary-learning ahead of them. Some new vocabulary will come to them through speech, but much will probably be acquired from the printed page. Learning new words from books will be especially true for those who go on to study medicine, electrical engineering, nuclear physics, or any academic discipline in an English-speaking institution of higher learning.

It would be ridiculous to imagine that, while these students are still in their English courses, they can learn from their teachers the pronunciation of all the words they will ever need to know thereafter. It is equally ridiculous to suggest that these new speakers of English will consult a dictionary to learn the pronunciation of every written word they encounter in the rest of their lives. More likely, they will do what we all do most of the time. They will acquire the skill, sooner or later, somehow or other, of figuring out a pronunciation for any new word they meet on a printed page.

Of course, it would be better if students could be provided, in their English courses, with instruction and guided

practice in pronouncing written English words—in translating graphic symbols into sound. Do ESL students get such instruct—ion and such practice? Probably not, for two very good reasons. We don't teach the elementary student about English orthography because our efforts are directed, as they should be, toward oral mastery of the language—and that is quite a lot. And we don't teach the more advanced student about English orthography because we really don't understand the nature of our spelling system and how it works.

The first of these reasons does not need any elaboration. The second one does. English spelling has been typically denounced as irregular, chaotic, and so forth. True enough, it is not like the special auxiliary notations we have just mentioned, since it is not the case that, in our orthography, one letter or sequence of letters always has the same value, nor is it the case that one pertinent sound or sequence of sounds always has the same representation. If that is the only way to define regularity, then English spelling is irregular.

However, if one stretches the previous definition and says that a spelling system is regular if a graphic unit always represents the same phonic unit in a particular environment, then English spelling is close to regularity. And if one further

allows position to be defined in a number of ways--position at the beginning or at the end or in the middle of a word, position before or after a possible word boundary, position in a stressed syllable or an unstressed one, position in different parts of speech (noun versus verb, for instance), even position in words of French origin versus words borrowed from Greek--if position is defined this broadly, then English spelling is seen to be quite regular indeed.

Too many statements made in the past have tended to dwell on the irregularities of English spelling. How often, in discussions of orthography have we seen a reference to that eccentric group composed of tough, cough, though, through, and hiccough? Yet these words do not illustrate what is typical; they represent the extreme in divergence from the principle of a graphic sequence always having the same value. We have to recognize that these anomalies exist, but we also need to recognize that they are anomalies.

There is another small matter that may cause misunderstanding here. One has different kinds of difficulties with English spelling depending on whether one is performing the role of reader or the role of writer. If we are native speakers of English, most of our orientation and conscious thinking about

orthography has been directed toward performing the role of writer--toward learning to recall the correct spelling of words that we know, in pronunciation and meaning. Most of our efforts have been directed toward remembering, for example, when to write I before E and when to do the opposite, when to spell with OU and when to spell with OW. An extreme case of such recalling is remembering how to spell homophones--to distinguish principal from principle or capital from capitol, for instance.

The problem we confront with the foreign learner of English is a more basic one: how to pronounce what is written. The problem is, for example, recalling when OW stands for the sound in brown cow and when it represents the vowel of slow show. The extreme case of such recall is the separation of homographs—distinguishing, for example, the noun conduct from the verb conduct, or the noun invalid from the adjective invalid. Of course, the reader's problem is simpler than that of the writer. The writer has to remember, for instance, that knowledge, gnostic, mnemonic, and pneumatic are all written with a consonant letter before the letter N, and he has to remember which consonant letter in each case. The reader, however, has to remember only one fact here: that when a consonant letter appears in initial

position immediately before N, it is to be ignored. It has no value.

The pairs of words just below illustrate some of the kinds of knowledge that one has to have in order to read English orthography. In each pair the two words look as if they should rhyme, but they don't. These are typical instances in which graphic sames have different phonic values. Why?

swallow simply denial dragnet indicate tagged . allow imply menial magnet intricate jagged

First, <u>swallow</u> and <u>allow</u> look as if they rhyme, but of course they don't. One big difference between them is that <u>swallow</u> is stressed on the first syllable, <u>allow</u> on the second. The two vowel graphemes, A and OW, can have quite different values in stressed and unstressed syllables. Then, how does one know that one word has first-syllable stress and the other has second-syllable stress? There is, unfortunately, no way of knowing from what is on paper. In English we don't use accent marks to indicate stress. One just has to know.

With the other pairs of words, however, there are clues about stress differences and therefore about other differences

in pronunciation. The words <u>simply</u> and <u>imply</u> differ in stress just as <u>swallow</u> and <u>allow</u>, and the stress difference explains the different values of Y in the two words. Looking a little closer we see that the difference in stress is somewhat predictable. The word <u>imply</u> is a verb; it consists of a sort of prefix and a sort of base; it belongs to the same set of words as <u>apply</u>, <u>comply</u>, <u>reply</u>, <u>supply</u>. The word <u>simply</u>, on the other hand, is what we get when we add the suffix -LY to <u>simple</u>, a word that ends with a consonant followed by LE. That is, <u>simply</u> belongs to the same set of words as <u>gently</u>, <u>nobly</u>, <u>doubly</u>. Word structure determines stress, and knowledge of word structure tells us how to pronounce.

You know why those look-alike words, <u>menial</u> and <u>denial</u>, are more similar in sight than in sound. An experienced reader of English is aware that <u>denial</u> contains <u>deny</u> in slightly altered form, that there is a sort of invisible word boundary inside the word which determines the place of stress and, consequently, the value of the letter I. The word <u>menial</u> has no such interior division. Instead, it has an ending similar to that of <u>medial</u>, <u>filial</u>, <u>labial</u>, and other not-so-common adjectives of Latin origin.

An interior boundary also explains why <u>magnet</u> and <u>dragnet</u> don't rhyme. <u>Dragnet</u> is a compound word with two independent parts. Like many compounds it has main stress (or primary stress) on the first syllable and middle stress (or tertiary stress) on the second syllable: <u>drágnèt</u>. <u>Magnet</u> is a simple word with main stress on the first syllable and an unstressed second syllable. Different kinds of stress on the second syllable of the two words account for the different values of E in the two last syllables.

The pair <u>indicate</u> and <u>intricate</u> is similar. Both words have main stress on the first syllable. <u>Indicate</u>, like all verbs of this type (<u>irritate</u>, <u>regulate</u>, <u>manipulate</u>), has middle stress on the last syllable, which therefore sounds like <u>Kate</u>. <u>Intricate</u>, like all such adjectives (<u>adequate</u>, <u>considerate</u>, <u>temperate</u>) has an unstressed final syllable and therefore a slurred vowel sound, a schwa, C01.

Finally, look at tagged and jagged. The first is a verb, a past tense form, and (like rubbed, loved, and hugged) a one-syllable word. The second word is not a verb. Its two vowel letters indicate two vowel sounds, therefore two syllables.

The point of all this is a simple one. Any English grapheme may have more than one value, but generally the value

that it has in a particular word depends on a complex of interrelated facts: the inner structure of the word, the stress
pattern that it has, and the part of speech to which it belongs.
The consequence of this point is equally simple. Learning to
identify and correctly pronounce written English words is not
any sort of mechanical application of rules that can be called
"phoneme-grapheme correspondences." Rather, it requires a complex ability to react to words in several aspects—or on several
levels—all at once.

It might be said that English orthography does not so much represent sounds as such, but rather sounds with regard to the ways they are related to other sounds. From one point of view the word partial would more aptly be spelled with SH instead of with TI. After all, the sound is like that in harsh, isn't it? But something else is involved. Words with the spelling TI are, broadly speaking, related to words with the letter and the sound. T: partial, presidential, correction, etc. Words with the spelling SH (harsh, push, rush, etc.) are not related to words with T. Different spellings signal, not different sounds, but different sound relations.

Consider the opposite situation. The words melody,

melodious, and melodic should by right have different vowel letters in the second syllable, since they have different vowel sounds in pronunciation. But that would destroy another kind of visual relationship, a single letter representing, not the same sound, but different related sounds.

To teach the student of English as a new language to work successfully with English orthography therefore means teaching him about sound relationships and word relationships. I am work—ing at devising materials to help advanced ESL students to do this. I take it for granted that such materials must be different from materials intended for teaching spelling to native speakers of English. And I take it for granted that such materials should follow, more or less, the techniques which have proven successful in audiolingual language teaching. Such materials will expose the student systematically to minimal pairs of words in which similar spelling corresponds to similar pronunciations; to pairs in which similar spelling corresponds to different pronunciations; and to pairs in which different spellings correspond to similar pronunciations.

The most complicated part of English orthography is, as everybody knows, the representation of vowel sounds. Five vowel letters, A, E, I, O, and U, aided by W and Y, must serve to

represent some fifteen or so stressed vowel units. There are three basic patterns of using these letters to stand for these vowel sounds. The three patterns are illustrated in the accompanying Chart. The first pattern contains the so-called long vowels, as in fate, scene, white, globe, cube, and so forth. The term "long vowel" is not particularly accurate when one describes the present-day pronunciation of these and other vowel sounds. However, it is a traditional term which is worth using to refer not so much to pronunciation as to this spelling pattern. In the pattern we have a single vowel letter, then a consonant letter, and then a final E. This E is generally referred to as "silent E," but I would prefer to call it a disappearing E because, as fatal, scenic, etc. show, it disappears before a suffix which begins with an initial vowel letter.

12a

Chart of Principal Stressed Vowel Spelling Patterns

Pattern 1 fate scene white globe cube fatal scenic whitish global cubic Pattern 2 sad get big hot gun sadden getting bigger hottest gunner 2a damp list fox 2b staff fill less stick Pattern 3 lay obey annoy layer surveyor loyal wait vein avoid raw, crawl brew, shrewd cow, crowd withdrawal brewer vowel haul feud cloud

brief suit foam see sea too

seed bead boot

13

This spelling pattern occurs in monosyllabic words, such as the examples given; it occurs also in words with main stress on the last syllable (e.g., debate, complete, describe, explode, compute); and it occurs in words with middle (or tertiary) stress on the last syllable (e.g., irritate, centipede, antagonize, episode, hypotenuse).

The second pattern is the so-called Short Vowel pattern, as illustrated in Group . The same five vowel letters have different values, as in sad, let, big, hot, and gun, respectively. The pattern consists of a single vowel letter followed by a single consonant letter, which must be doubled when a suffix with initial vowel is added. As the words in 2a remind us, the vowel letter may be followed not by a single consonant but by a cluster of consonant letters-and X counts as such a cluster. The words in Group to remind us that sometimes a double consonant letter comes at the end of a word, where a single consonant letter would seem to be sufficient. Most frequent final doubles are FF, LL, SS, and CK, which counts as the doubled form of K. Like Pattern One, the long vowel pattern, Pattern Two occurs in monosyllabic words like those illustrated; it occurs in a final syllable with main stress (canal, propel, begin, allot, corrupt); and it occurs in final syllables with middle stress (acrobat, alpha-

bet, derelict, arricot, viaduct.

The third pattern is more complicated. In the third pattern we group all words in which the stressed vowel sound is represented by two or three vowel letters together, including Y and W as last vowel letter. The occurrence of three vowel letters together to represent a single vowel sound is actually pretty rare. The number of two-vowel letter combinations is fairly large. The most common of them are shown in the twelve columns or sub-groupings on the handout. Let's examine them.

Three of the twelve have Y or I as the second member.

Y is the letter which occurs at the end of a word (way, obey,
annoy) or before a vowel letter (layer, conveyance, loyal),

I is the letter which occurs before a consonant letter (waist,
vein, avoid), but the respective groups are identical in their
value.

The next three combinations are comparable. These combinations contain W as the second member, alternating with U. However, the alternation is not entirely regular. U, in the groups AU, EU, and OU, never (or, as Gilbert and Sullivan would say, hardly ever) comes at the end of a word or before a vowel letter, positions in which W is more usual. Yet AW, EW, and OW also occur before consonant letters, with the result that we

have such pairs as <u>cloud</u> and <u>crowd</u> to give us spelling problems.

The next three subgroups include the letter combinations IE, UI, and OA, all of which occur only within words, never finally (if we except whoa and cocoa). These are not frequent in occurrence and are quite regular in the vowel sounds they represent. The last three subgroups indicate vowel letter combinations which occur both at the end and in the middle of words. The first such combination, EE, has the same value in either position. The second, EA, has only one value in final position but ambiguously stands for either the vowel sound of bead or that of bread in medial position. Similarly, the combination OO can only represent the value of too in final position, but in medial position the reader of a new word has to figure out whether it stands for the vowel sound of boot or that of foot.

Patterns 1 and 2 are distinguished in word-final position, as we have seen, by the presence or absence of the "disappearing" E (mate, mat). Before a suffix with initial vowel the two patterns are distinguished by the occurrence of a single or a double consonant letter (mating, matting). So, too, in other word-interior positions the single versus the double consonant letter tells the pattern, that is, the value of A, E, I, O, or U before another vowel letter or L. For example:

Pattern 1 halo edict silent locust nucleus
Pattern 2 hallow eddy silly locket knuckle

Unfortunately, however, spellings are often based on etymology rather than logic, and the system of differentiating the two values of the vowel letters breaks down. Note the following pairs of words in which different values for the vowel letters should be distinguished by the number of consonant letters immediately following, but are not.

famous demon ivy molar student famish lemon privy scholar study

The five single vowel letters, then, have two principal values each. The 18 two-letter graphemes which we have grouped together as Pattern 3 can also have more than one value. Let's go back to the problem of the letters OW in swallow and allow.

How can we formulate the necessary information about this grapheme and the pronunciations or values that it has? Some of the 18 two-letter graphemes never occur at the end of a word, some never occur before a vowel letter, some never occur before a consonant letter. The grapheme OW occurs in all three of these environments: finally, as in vowel, and before a consonant, as in downtown. Parenthetically, let's note that occurrence before a suffix, as in vowes and vowing,

counts as occurrence in final position, not occurrence before a consonant or vowel letter. And then, as we have already seen, OW can stand for the stressed vowel, as in <u>allow</u>, or an unstressed vowel, as in <u>swallow</u>.

These are the positions in which the grapheme occurs. What about its values? We find that OW stands for three different vowel sounds: the rather uncommon one which it has in knowledge and a few words derived from knowledge; and the much more common values as in brown cow and in slow show, which are about equal in frequency. I'm not yet sure about the right pedagogical order for introducing the necessary information to the student, but I think I know what the information is. First, we must present the irregularities, the word knowledge and its derivatives acknowledge, knowledgeable, etc. Then we can make more general statements. Such statements are essentially rules. Rule 1: if OW is followed by a vowel letter, it has the pronunciation of OW in the word vowel. Next, we need to present the exceptional words own and bowl. With these out of the way, we are ready for Rule 2: if OW is followed by a consonant letter, it has the pronunciation heard in downtown. Now we move on to talk about OW in word-final position. This is more complicated. We must present four pairs of homographs, bow, mow, row, and sow. These have to be presented with definitions and exercises in usage, so that our student ends up capable of

Next, we must present about ten or twelve words in which OW in final position ryhmes with <u>cow</u>. After this, we are ready for the third and final rule: in all other words final OW has the value of O. This applies to a few stressed syllables such as in <u>slow</u> and <u>below</u>, and to a larger number of unstressed final syllables, such as in <u>follow</u>, <u>yellow</u>, <u>tomorrow</u>, and the like.

The business about OW is rather messy. Let's look next at something more simple and straightforward. The letter group TI is sometimes equivalent to two separate graphemes which happen to occur in sequence, as in tin and stick and also time and tight. The same sequence of two letters might be considered a single grapheme when it is followed by a vowel letter. But whether it is considered a single grapheme or not, it has different values depending on occurrence in different positions—very subtle differences. Let's examine these different values.

In <u>Christian</u>, TI has the same value as CH. What is the position? It follows an S and precedes an unstressed vowel. And we find that TI has the same value always in this position—<u>suggestion</u>, <u>celestial</u>, <u>exhaustion</u>, for instance. In <u>Christianity</u>, on the other hand, TI stands for a consonant sound and a vowel sound, approximately the sound of <u>tea</u>. The value is different because the position is different: following an S and preceding a <u>stressed</u> vowel.

Next, note that in <u>initial</u> the grapheme TI precedes an unstressed vowel. Its value here is that of SH. This position and this value are extremely frequent. There are thousands of words ending in TION alone, such as <u>nation</u>, <u>action</u>, <u>description</u>, etc. When we look at <u>initiate</u>, we see TI with another value still, approximately the pronunciation of the word <u>she</u>. The value of TI is different because the position is different. Here TI is not preceded by S but is followed by a vowel with middle stress. And this is the value which TI normally has when not preceded by S and followed by a vowel with main stress or middle stress, such as <u>negotiate</u>, <u>tertiary</u> or <u>confidentiality</u>. Such words, of course, are not numerous.

For our final exploration, consider the sequence TU. First of all, we have to note that U, just like the other vowel letters, A, E, I, and O, represents two different vowel sounds regularly, a so-called long vowel and a so-called short vowel. We find the short value of U when it stands for a stressed vowel and is followed by a single consonant letter in final position (tug), a double consonant (tunnel), or a cluster of consonants (tumble). This is true when U represents the stressed vowel of the word—which, in a word like tug, is the only vowel. This is also true when U stands for an unaccented vowel and if followed by a cluster

of consonants as in <u>Tuskeeqee</u> or <u>tuxedo</u> (of course, X counts as a cluster of consonants). On the other hand, U has its so-called "long" value when it is followed by just one consonant letter which is not final. Most often we use the device of the so-called silent E to keep the consonant letter from being final, as in <u>tune</u> and <u>refute</u>, where the vowel has main stress, and in <u>attitude</u>, <u>institute</u>, and the like where the vowel has middle stress. We find the same "long vowel" value when U is in an unstressed initial syllable followed by not more than one consonant letter, as in <u>tuition</u> and <u>tuberculosis</u>.

Note that the two values of U, the so-called long vowel and short vowel, are kept apart by the device of doubling a consonant letter after the vowel in non-final position. The device is used, of course, for all vowel letters. Unfortunately, however, the device is not used consistently. Common sense does not always apply. Thus we have a typical kind of break-down in our spelling system with such words as <u>student</u> and <u>study</u>, where the consonant letter is not doubled in the latter case and the values of the vowel letter become ambiguous.

In all the instances so far, T has had the expected value.

However, before an unstressed U, T sometimes has the value of CH.

Sometimes, that is. Let's look. If T is followed by an unstressed

U and that U is followed by a final S or M, then T has the expected

value, and U stands for our slurred vowel, schwa, as in <u>status</u>, <u>stratum</u>, and the like. But if U is not followed by one of these two final consonants, then T has the value of CH. U will have its expected "full" value if it stands for a final sound, as in <u>statue</u>, or a vowel sound before another vowel sound, as in <u>actual</u>, and <u>statuary</u>. If a consonant follows, however, the letter U just stands for a schwa, as in <u>century</u> and <u>spatula</u>.

Complicated? Yes, very complicated—but not at all irregular or chaotic, as English orthography has so often been called. On observation we see that the interpretation of graphic entities depends on very subtle kinds of environment. But the situation is not so piecemeal as it may sound. There are broad generalizations to be made. What is said here about TI is more or less parallel to what can be said about CI and SI and SSI. What has been said here about TU could be paralleled by statements about DU, SU, SSU, and the like.

To help students acquire an understanding of English spelling and skill in using it, we need to present them with pairs of words differing in some consistent way. One such grouping,

for instance, would contrast words like these:

depart

departure

fact

factual

spirit

spiritual

Another grouping would contrast word-pairs like these:

elect

election

promote

promotion

resident

residential

Through this sort of word study students might, hopefully, become more competent in handling the indispensable tool of educated people, the writing system which is used for our language.

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